AMENDMENTS TO THE CLAIMS

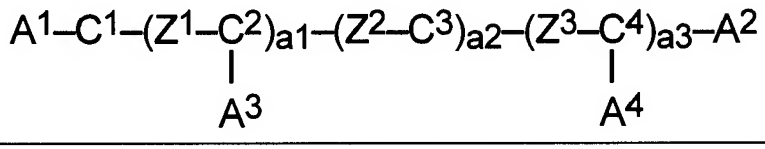
This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A mesogenic, cross-linkable mixture comprising:

i) a cross-linkable liquid crystalline host comprising at least one cross-linkable liquid crystalline compound, and

ii) at least one chiral or achiral rod shaped additive component, wherein the additive component is a compound of formula (I):



(I)

wherein:

C^1 to C^4 are selected from optionally substituted cyclohexyl or cyclohexylene, phenyl or phenylene, naphthyl or naphthylene or phenanthryl or phenanthrylene;

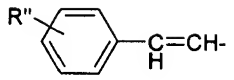
connected to each other at the opposite positions via the bridging groups Z^1 to Z^3;

A^1 to A^4 independently from each other is hydrogen, a polar group which is cyano, nitro, a halogen, or a group of formula (II):

$$P\text{-}(Sp)_k\text{-}(X)_t - \qquad (II)$$

in which:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O-, CH_2=CW-COO- or



wherein:

W is H, CH_3, F, Cl, Br or I,

R" is a C_{1-6} alkyl group, methoxy, cyano, F, Cl, Br or I,

Sp is a C_{1-22} branched or straight-chain alkylene group, in which one or more $-CH_2-$ groups present in the hydrocarbon chain may be replaced, independently, by one or more groups selected from -O-, -CH(OH)-, $-SO_2-$, -COO-, -OCO-, -OCO-O-, -CH=CH-, -C≡C-, $-(CF_2)_r-$,

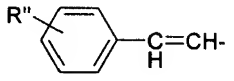
with the proviso that no two oxygen atoms are directly linked to each other, and wherein r is an integer between 1 and 10,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond,

t is 1,

with the proviso that at least one of A^1 to A^4 comprises a polymerizable group which is CH_2=CW-, CH_2=CW-O-, CH_2=CW-COO- or



wherein:

W is H, CH_3, F, Cl, Br or I,

R" is a C_{1-6} alkyl group, methoxy, cyano, F, Cl, Br or I;

Z^1 to Z^3 are independently from each other -CH(OH)-, -CO-, $-CH_2(CO)-$, -SO-, $-CH_2(SO)-$, $-SO_2-$, $-CH_2(SO_2)-$, -COO-, -OCO-, $-COCF_2-$, $-CF_2CO-$, -S-CO-, -CO-S-, -SOO-, -OSO-, -SOS-, $-CH_2-CH_2-$, $-OCH_2-$, $-CH_2O-$, -CH=CH-, -C≡C-, -CH=CH-COO-, -OCO-CH=CH-, -CH=N-, $-C(CH_3)=N-$, -N=N- or a single covalent bond,

a1, a2 and a3 are independently from each other integers from 0 to 3, such that

$$1 \leq a1 + a2 + a3 \leq 3,$$

with the proviso that the sequence:

$$A^1\text{-}C^1\text{-}(Z^1\text{-}C^2)_{a1}\text{-}(Z^2\text{-}C^3)_{a2}\text{-}(Z^3\text{-}C^4)_{a3}\text{-}A^2$$

describes the long molecular axis of the rod shaped additive components

~~wherein said additive component has a rigid core and comprises at least two fused or linked, optionally substituted, non-aromatic, aromatic, carbocyclic or heterocyclic groups, and also comprises at least one optionally substituted alkyl residue, and at least one polymerizable group~~ and wherein the additive component changes from the liquid crystalline state to the isotropic state at a temperature of 20 °C or lower.

2. (canceled).

3. (original): A mixture according to claim 1, wherein the additive component has a transition temperature to the isotropic state of 0 °C or lower.

4. (previously presented): A mixture according to claim 1 having a clearing temperature of 30 °C or higher.

5. (previously presented): A mixture according to claim 1 having a clearing temperature of 50 °C or higher.

6. (previously presented): A mixture according to any one of claims 1 or 3-5, wherein the liquid crystalline host has a clearing temperature of 50 °C or higher.

7. (canceled).

8. (canceled).

9. (canceled).

10. (canceled).

11. (canceled).

12. (currently amended): A mixture according to ~~one of claims 7 and 8~~ claim 1, wherein:

A^1 comprises a polymerizable group which is CH_2=CW-, CH_2=CW-O-, CH_2=CW-COO-,

wherein:

W is H or CH_3,

A^2 has the meaning of formula (II),

$$P\text{-}(Sp)_k\text{-}(X)_t\text{ -} \quad \text{(II)}$$

in which:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O- or CH_2=CW-COO-,

wherein:

W is H or CH_3,

Sp is a branched C_3-C_{16} alkylene group, optionally comprising at least one oxocarbonyl or carbonlyoxy group, or is a straight C_2-C_{16} alkylene group, comprising at least one oxocarbonyl or carbonyloxy group, wherein one or more -CH_2- groups present in the

hydrocarbon chain may be replaced, independently, by one or more groups selected from -O-, -CH=CH-, -C≡C-, with the proviso that no two oxygen atoms are directly linked to each other,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond, more preferably -O-, -COO-, -OCO- or a single bond,

t is 1

A^4 is hydrogen.

13. (currently amended): A mixture according ~~to one of claims 7 and 8~~ claim 1, wherein:

A^1 has the meaning of formula (II),

$$P\text{-}(Sp)_k\text{-}(X)_t\text{-} \quad (II)$$

wherein:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O- or CH_2=CW-COO-,

wherein:

W is H or CH_3,

Sp is a branched C_3-C_{16} alkylene group, optionally comprising at least one oxocarbonyl or group, or is a straight C_2-C_1 alkylene group, comprising at least one oxocarbonyl or carbonyloxy group, wherein one or more -CH_2- groups present in the hydrocarbon chain may be replaced, independently, by one or more groups selected from -O-, -CH=CH-, -C≡C-, with the proviso that no two oxygen atoms are directly linked to each other,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond, more preferably -O-, -COO-, -OCO- or a single bond,

t is 1,

A^2 comprises a polymerizable group which is CH_2=CW-, CH_2=CW-O-, or CH_2=CW-COO-,

wherein:

W is H or CH_3,

A^4 is hydrogen.

14. (currently amended): A mixture according to ~~one of claims 7 and 8~~ claim 1, wherein:

A^1 has the meaning of formula (II),

$$P\text{-}(Sp)_k\text{-}(X)_t\text{-} \quad (II)$$

wherein:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O- or CH_2=CW-COO-,

wherein:

W is H or CH_3,

Sp is a branched C_3-C_{16} alkylene group, optionally comprising at least one oxocarbonyl or carbonlyoxy group, or is a straight C_2-C_{16} alkylene group, comprising at least one oxocarbonyl or carbonyloxy group, wherein one or more -CH_2- groups present in the hydrocarbon chain may be replaced, independently, by one or more groups selected from -O-, -CH=CH-, -C≡C-, with the proviso that no two oxygen atoms are directly linked to each other,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond, more preferably -O-, -COO-, -OCO- or a single bond,

t is 1,

A^3 comprises a polymerizable group which is CH_2=CW-, CH_2=CW-O-, or CH_2=CW-COO-,

wherein:

W is H or CH_3,

A^4 is hydrogen.

15. (currently amended): A mixture according to ~~one of claims 7 and 8~~ claim 1, wherein:

A^2 has the meaning of formula (II),

$$P\text{-}(Sp)_k\text{-}(X)_t\text{ -} \quad (II)$$

in which:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O- or CH_2=CW-COO-,

wherein:

W is H or CH_3,

Sp is a branched C_3-C_{16} alkylene group, optionally comprising at least one oxocarbonyl or carbonlyoxy group, or is a straight C_2-C_{16} alkylene group, comprising at least one oxocarbonyl or carbonyloxy group, wherein one or more -CH_2- groups present in the hydrocarbon chain may be replaced, independently, by one or more groups selected from -O-, -CH=CH-, -C≡C-, with the proviso that no two oxygen atoms are directly linked to each other,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond, more preferably -O-, -COO-, -OCO- or a single bond,

t is 1,

A^3 comprises a polymerizable group which is CH_2=CW-, CH_2=CW-O-, or CH_2=CW-COO-,

wherein:

W is H or CH_3,

A^4 is hydrogen.

16. (currently amended): A mixture according to ~~one of claims 7 and 8~~ claim 1, wherein:

A^1 and A^2 have the meaning of formula (II),

$$P\text{-}(Sp)_k\text{-}(X)_t\text{ -} \quad \text{(II)}$$

wherein:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O- or CH_2=CW-COO-,

wherein:

W is H or CH_3,

Sp is a branched C_3-C_{16} alkylene group, optionally comprising at least one oxocarbonyl or carbonlyoxy group, or is a straight C_2-C_{16} alkylene group, comprising at least one oxocarbonyl or carbonyloxy group, wherein one or more -CH_2- groups present in the hydrocarbon chain may be replaced, independently, by one or more groups selected from -O-, -CH=CH-, -C≡C-, with the proviso that no two oxygen atoms are directly linked to each other,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond, more preferably -O-, -COO-, -OCO- or a single bond,

t is 1,

A^3 comprises a polymerizable group which is CH_2=CW-, CH_2=CW-O-, or CH_2=CW-COO-,

wherein:

W is H or CH_3,

A^4 is hydrogen.

17. (currently amended): A mixture according to ~~one of claims 7 and 8~~ claim 1, wherein at least one of A^1 to A^3 has the meaning of formula (II),

$$P\text{-}(Sp)_k\text{-}(X)_t\text{-} \qquad (II)$$

wherein:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O-, CH_2=CW-COO-,

wherein:

W is H or CH_3,

Sp has the meaning of formula (III)

$$(CH_2)n^1\text{-}(Y^1)m^1\text{-}(CH_2)n^2\text{-}(B^1)m^2\text{-}(CH_2)n^3\text{-}(Y^2)m^3\text{-}(CH_2)n^4$$

with R^1 and R^2 attached to B^1

(III)

wherein:

Y^1 and Y^2 each independently represent -OCO- or -COO-,

B^1 represents C or CH,

R^1 and R^2 each independently represent hydrogen or a C_1-C_{12} alkyl residue, preferably a C_1-C_6 alkyl residue, which is a methyl, ethyl, propyl, butyl, pentyl, hexyl or isopropyl residue,

n1, n2, n3 and n4 are independently integers from 0 to 15, such that $0 \leq n1 + n2 + n3 + n4 \leq 15$,

m1, m2 and m3 are independently integers from 0 to 3, such that

$1 \leq m1 + m2 + m3 \leq 3$ and wherein:

one or more $-CH_2-$ groups present in the hydrocarbon chain of (III) may be replaced, independently, by one or more groups selected from -O-, -CH=CH- or -C≡C-,

with the proviso that the carbon-carbon double bond of P is not directly connected to the carbon atom of Y^1 or Y^2,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond, more preferably -O-, -COO-, -OCO- or a single bond,

t is 1.

18. (currently amended): A mixture according to ~~one of claims 7 and 8~~ claim 1, wherein at least one of A^1 to A^3 has the meaning of formula (II),

$$P\text{-}(Sp)_k\text{-}(X)_t\text{-} \qquad (II)$$

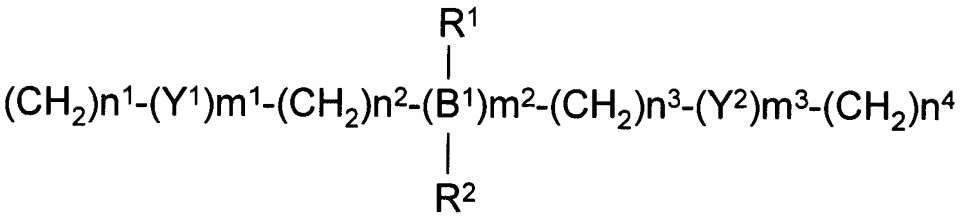
wherein:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O-, CH_2=CW-COO-,

wherein:

W is H or CH_3,

Sp has the meaning of formula (III)



(III)

wherein:

Y^1 and Y^2 each independently represent -OCO- or -COO-,

B^1 represents C or CH,

R^1 is hydrogen

R^2 represents a methyl, ethyl, propyl, butyl, pentyl or hexyl group and most preferably a methyl or ethyl group,

n1, n2, n3 and n4 are independently integers from 0 to 15,

such that $0 \leq n1 + n2 + n3 + n4 \leq 15$,

m1, m2 and m3 are independently integers from 0 to 3,

such that $1 \leq m1 + m2 + m3 \leq 3$, and wherein:

one or more -CH_2- groups present in the hydrocarbon chain of (III) may be replaced, independently, by one or more groups selected from -O-, -CH=CH- or -C≡C-,

with the proviso that the carbon-carbon double bond of P is not directly connected to the carbon atom of Y^1 or Y^2,

k is 1,

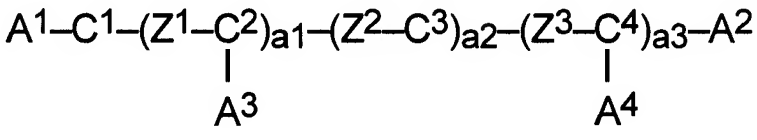
X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond, more preferably -O-, -COO-, -OCO- or a single bond,

t is 1.

19. (previously presented): A mixture according to claim 1 comprising further agents, such as cross-linking agents, stabilizing agents, initiators, dyes, other chiral or achiral additives and plasticizers.

20. (previously presented): A mixture according to claim 1 in form of an elastomer, polymer gel, polymer network or polymer film.

21. (currently amended): A chiral or achiral rod shaped compound, wherein said compound is of formula (I):



(I)

wherein:

C^1 to C^4 are selected from optionally substituted cyclohexyl or cyclohexylene, phenyl or phenylene, naphthyl or naphthylene or phenanthryl or phenanthrylene;

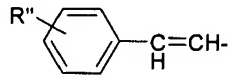
connected to each other at the opposite positions via the bridging groups Z^1 to Z^3;

A^1 to A^4 independently from each other is hydrogen, a polar group which is cyano, nitro, a halogen, or a group of formula (II):

$$P\text{-}(Sp)_k\text{-}(X)_t - \quad \text{(II)}$$

in which:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O-, CH_2=CW-COO- or



wherein:

W is H, CH_3, F, Cl, Br or I,

R" is a C_{1-6} alkyl group, methoxy, cyano, F, Cl, Br or I,

Sp is a C_{1-22} branched or straight-chain alkylene group, in which one or more $-CH_2-$ groups present in the hydrocarbon chain may be replaced, independently, by one or more groups selected from -O-, -CH(OH)-, $-SO_2-$, -COO-, -OCO-, -OCO-O-, -CH=CH-, -C≡C-, $-(CF_2)_r-$,

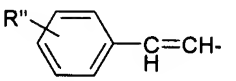
with the proviso that no two oxygen atoms are directly linked to each other, and wherein r is an integer between 1 and 10,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond,

t is 1,

with the proviso that at least one of A^1 to A^4 comprises a polymerizable group which is CH_2=CW-, CH_2=CW-O-, CH_2=CW-COO- or



wherein:

W is H, CH_3, F, Cl, Br or I,

R" is a C_{1-6} alkyl group, methoxy, cyano, F, Cl, Br or I;

Z^1 to Z^3 are independently from each other -CH(OH)-, -CO-, $-CH_2(CO)-$, -SO-, $-CH_2(SO)-$, $-SO_2-$, $-CH_2(SO_2)-$, -COO-, -OCO-, $-COCF_2-$, $-CF_2CO-$, -S-CO-, -CO-S-, -SOO-, -OSO-, -SOS-, $-CH_2-CH_2-$, $-OCH_2-$, $-CH_2O-$, -CH=CH-, -C≡C-, -CH=CH-COO-, -OCO-CH=CH-, -CH=N-, $-C(CH_3)=N-$, -N=N- or a single covalent bond,

a1, a2 and a3 are independently from each other integers from 0 to 3, such that

$$1 \leq a1 + a2 + a3 \leq 3,$$

with the proviso that the sequence:

$$A^1\text{-}C^1\text{-}(Z^1\text{-}C^2)_{a1}\text{-}(Z^2\text{-}C^3)_{a2}\text{-}(Z^3\text{-}C^4)_{a3}\text{-}A^2$$

describes the long molecular axis of the rod shaped additive components ~~has a rigid core and comprises at least two fused or linked, optionally substituted, non-aromatic, aromatic, carbocyclic or heterocyclic groups, and also comprises at least one optionally substituted alkyl residue, and also comprises at least one polymerizable group~~ and has a transition temperature to the isotropic state of 20 °C or lower.

22. (canceled).

23. (previously presented): A compound according to claim 21, wherein the compound has transition temperature to the isotropic state of 0 °C or lower.

24. (canceled).

25. (canceled).

26. (canceled).

27. (canceled).

28. (canceled).

29. (currently amended): A compound according to ~~claim 24~~ claim 21, wherein:

A^1 comprises a polymerizable group which is CH_2=CW-, CH_2=CW-O-, CH_2=CW-COO-,

wherein:

W is H or CH_3,

A^2 has the meaning of formula (II),

$$P\text{-}(Sp)_k\text{-}(X)_t\text{ -} \quad (II)$$

in which:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O- or CH_2=CW-COO-,

wherein:

W is H or CH_3,

Sp is a branched C_3-C_{16} alkylene group, optionally comprising at least one oxocarbonyl or carbonlyoxy group, or is a straight C_2-C_{16} alkylene group, comprising at least one oxocarbonyl or carbonyloxy group, wherein one or more -CH_2- groups present in the hydrocarbon chain may be replaced, independently, by one or more groups selected from -O-, -CH=CH-, -C≡C-, with the proviso that no two oxygen atoms are directly linked to each other,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond, more preferably -O-, -COO-, -OCO- or a single bond,

t is 1

A^4 is hydrogen.

30. (currently amended): A compound according to ~~claim 24~~ claim 21, wherein:

A^1 has the meaning of formula (II),

$$P\text{-}(Sp)_k\text{-}(X)_t\text{-} \quad (II)$$

wherein:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=W-O- or CH_2=CW-COO-,

wherein:

W is H or CH_3,

Sp is a branched C_3-C_{16} alkylene group, optionally comprising at least one oxocarbonyl or carbonlyoxy group, or is a straight C_2-C_{16} alkylene group, comprising at least one oxocarbonyl or carbonyloxy group, wherein one or more -CH_2- groups present in the hydrocarbon chain may be replaced, independently, by one or more groups selected from -O-, -CH=CH-, -C≡C-, with the proviso that no two oxygen atoms are directly linked to each other,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond, more preferably -O-, -COO-, -OCO- or a single bond,

t is 1,

A^2 comprises a polymerizable group which is CH_2=CW-, CH_2=CW-O-, or CH_2=CW-COO-,

wherein:

W is H or CH_3,

A^4 is hydrogen.

31. (currently amended): A compound according to ~~claim 24~~ claim 21, wherein:

A^1 has the meaning of formula (II),

$$P\text{-}(Sp)_k\text{-}(X)_t - \quad (II)$$

wherein:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O- or CH_2=W-COO-,

wherein:

W is H or CH_3,

Sp is a branched C_3-C_{16} alkylene group, optionally comprising at least one oxocarbonyl or carbonlyoxy group, or is a straight C_2-C_{16} alkylene group, comprising at least one oxocarbonyl or carbonyloxy group, wherein one or more -CH_2- groups present in the hydrocarbon chain may be replaced, independently, by one or more groups selected from -O-, -CH=CH-, -C≡C-, with the proviso that no two oxygen atoms are directly linked to each other,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond, more preferably -O-, -COO-, -OCO- or a single bond,

t is 1,

A^3 comprises a polymerizable group which is CH_2=CW-, CH_2=CW-O-, or CH_2=CW-COO-,

wherein:

W is H or CH_3,

A^4 is hydrogen.

32. (currently amended): A compound according to ~~claim 24~~ claim 21, wherein:

A^2 has the meaning of formula (II),

$$P\text{-}(Sp)_k\text{-}(X)_t\text{-} \quad (II)$$

wherein:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O- or CH_2=CW-COO-,

wherein:

W is H or CH_3,

Sp is a branched C_3-C_{16} alkylene group, optionally comprising at least one oxocarbonyl or carbonlyoxy group, or is a straight C_2-C_{16} alkylene group, comprising at least one oxocarbonyl or carbonyloxy group, wherein one or more -CH_2- groups present in the hydrocarbon chain may be replaced, independently, by one or more groups selected from -O-, -CH=CH-, -C≡C-, with the proviso that no two oxygen atoms are directly linked to each other,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond, more preferably -O-, -COO-, -OCO- or a single bond,

t is 1,

A^3 comprises a polymerizable group which is CH_2=CW-, CH_2=CW-O-, or CH_2=CW-COO-,

wherein:

W is H or CH_3,

A^4 is hydrogen.

33. (currently amended): A compound according to ~~claim 24~~ claim 21, wherein:

A^1 and A^2 have the meaning of formula (II),

$$P\text{-}(Sp)_k\text{-}(X)_t\text{-} \quad (II)$$

wherein:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O- or CH_2=CW-COO-,

wherein:

W is H or CH_3,

Sp is a branched C_3-C_{16} alkylene group, optionally comprising at least one oxocarbonyl or carbonlyoxy group, or is a straight C_2-C_{16} alkylene group, comprising at least one oxocarbonyl or carbonyloxy group, wherein one or more -CH_2- groups present in the hydrocarbon chain may be replaced, independently, by one or more groups selected from -O-, -CH=CH-, -C≡C-, with the proviso that no two oxygen atoms are directly linked to each other,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond, more preferably -O-, -COO-, -OCO- or a single bond,

t is 1,

A^3 comprises a polymerizable group which is CH_2=CW-, CH_2=CW-O-, or CH_2=CW-COO-,

wherein:

W is H or CH_3,

A^4 is hydrogen.

34. (currently amended): A compound according to ~~claim 24~~ claim 21, wherein at least one of A^1 to A^3 has the meaning of formula (II),

$$P\text{-}(Sp)_k\text{-}(X)_t\text{-} \qquad (II)$$

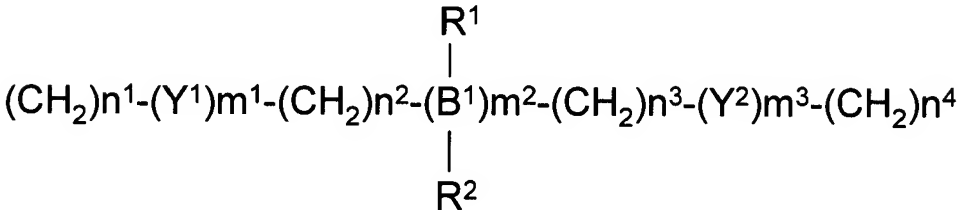
wherein:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O-, CH_2=CW-COO-,

wherein:

W is H or CH_3,

Sp has the meaning of formula (III)



(III)

wherein:

Y^1 and Y^2 each independently represent -OCO- or –COO-,

B^1 represents C or CH,

R^1 and R^2 each independently represent hydrogen or a C_1-C_{12} alkyl residue, preferably a C_1-C_6 alkyl residue, which is methyl, ethyl, propyl, butyl, pentyl, hexyl or isopropyl residue,

n1, n2, n3 and n4 are independently integers from 0 to 15, such that $0 \leq n1 + n2 + n3 + n4 \leq 15$,

m1, m2 and m3 are independently integers from 0 to 3, such that $1 \leq m1 + m2 + m3 \leq 3$ and

wherein one or more $-CH_2-$ groups present in the hydrocarbon chain of (III) may be replaced, independently, by one or more groups selected from -O-, -CH=CH- or -C≡C-,

with the proviso that the carbon-carbon double bond of P is not directly connected to the carbon atom of Y^1 or Y^2,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond, more preferably -O-, -COO-, -OCO- or a single bond,

t is 1.

35. (currently amended): A compound according to ~~claim 24~~ claim 21, wherein at least one of A^1 to A^3 has the meaning of formula (II),

$$P\text{-}(Sp)_k\text{-}(X)_t\text{-} \qquad (II)$$

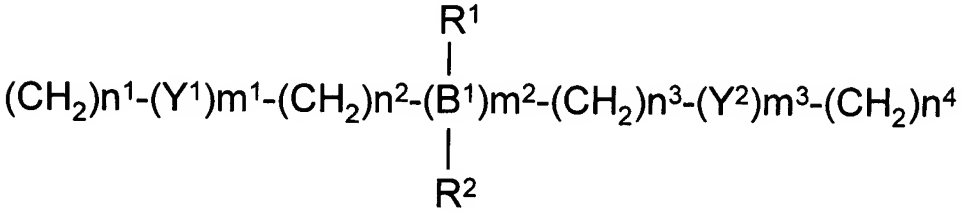
wherein:

P is hydrogen or a polymerizable group which is CH_2=CW-, CH_2=CW-O-, CH_2=CW-COO-,

wherein:

W is H or CH_3,

Sp has the meaning of formula (III)



(III)

wherein:

Y^1 and Y^2 each independently represent –OCO- or –COO-,

B^1 represents C or CH,

R^1 is hydrogen,

R^2 represents a methyl, ethyl, propyl, butyl, pentyl or hexyl group and most preferably a methyl or ethyl group,

n1, n2, n3 and n4 are independently integers from 0 to 15, such that $0 \leq n1 + n2 + n3 + n4 \leq 15$,

m1, m2 and m3 are independently integers from 0 to 3, such that $\leq m1 + m2 + m3 \leq 3$, and

wherein one or more $-CH_2-$ groups present in the hydrocarbon chain of (III) may be replaced, independently, by one or more groups selected from -O-, -CH=CH- or -C≡C-,

with the proviso that the carbon-carbon double bond of P is not directly connected to the carbon atom of Y^1 or Y^2,

k is 1,

X is -O-, -CO-, -COO-, -OCO-, -CH=CH-, -C≡C-, or a single bond, more preferably -O-, -COO-, -OCO- or a single bond,

t is 1.

36. (currently amended): A method of using a chiral or achiral rod shaped compound, comprising preparing mesogenic polymer mixtures according to claim 1 with a chiral or achiral rod shaped compound, wherein said compound ~~with a chiral or achiral rod shaped compound,~~

~~wherein said compound has a rigid core and comprises at least two fused or linked, optionally substituted, non-aromatic, aromatic, carbocyclic or heterocyclic groups, and also comprises at least one optionally substituted alkyl residue, and also comprises at least one polymerizable group and~~ has a transition temperature to the isotropic state of ~~40 °C~~ 20 °C or lower.

37. (previously presented): Polymer networks prepared from a mixture according to claim 1.

38. (previously presented): Liquid crystalline polymer films prepared from a mixture according to claim 1.

39. (previously presented): A method of using a polymer network or a liquid crystalline polymer film, comprising preparing unstructured or structured optical and electro-optical components and multilayer systems from (A) a polymer network prepared from a mixture according to claim 1 or (B) a liquid crystalline polymer film prepared from a mixture according to claim 1.

40. (previously presented): A method of using a mesogenic, cross-linkable mixture, comprising preparing an elastomer, polymer gel, polymer network or polymer film from a mesogenic, cross-linkable mixture according to claim 1.

41. (previously presented): A method of using a polymer network, comprising manufacturing waveguides, optical gratings, filters, retarders, polarizers, piezoelectric cells or thin film exhibiting non-linear optical properties from a polymer network according to claim 37.

42. (previously presented): Optical or electro-optical components comprising a polymer network according to claim 37.

43. (previously presented): A method of using a liquid crystalline polymer film, comprising manufacturing waveguides, optical gratings, filters, retarders, polarizers,

piezoelectric cells or thin film exhibiting non-linear optical properties from a liquid crystalline polymer film according to claim 38.

44. (previously presented): Optical or electro-optical components comprising a liquid crystalline polymer film according to claim 38.

45. (new): A mixture according to claim 1, wherein X is -O-, -COO-, -OCO- or a single bond.

46. (new): A compound according to claim 21, wherein X is -O-, -COO-, -OCO- or a single bond.